Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

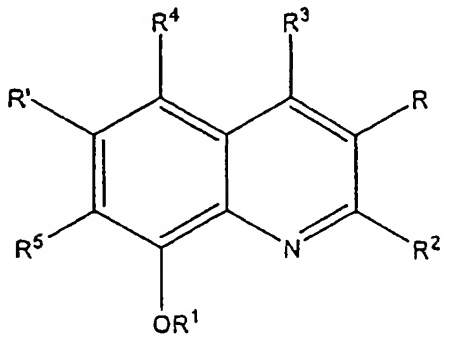
Listing of claims:

IN THE CLAIMS:

Claim 1 (original). A method for the prophylaxis and/or treatment of a condition or disorder associated with or exacerbated by oxidative stress and with symptoms including cognitive impairment or memory loss in a subject, said method comprising administering to said subject an effective amount of an 8-substituted quinolone which reduces the levels of reactive oxygen species or a derivative, homolog, analog, chemical equivalent or mimetic thereof.

Claim 2 (original). The method of Claim 1, wherein the condition or disorder is a neurological condition or disorder.

Claim 3 (currently amended). The method of Claim 1 [[or 2]], wherein the 8-substituted quinolone is of the Formula



I

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety;

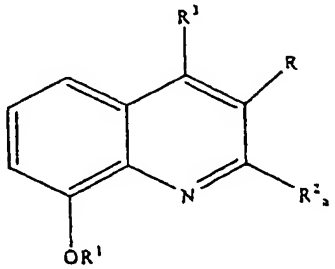
R^2 is H; optionally substituted alkyl; optionally substituted alkenyl; optionally substituted aryl; optionally substituted heterocyclyl; optionally substituted alkoxy; an antioxidant; a targeting moiety; COR^6 or CSR^6 in which R^6 is H, optionally substituted alkyl, optionally substituted alkenyl, hydroxy, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant, a targeting moiety, or OR^7, SR^7 or NR^7R^8 in which R^7 and R^8 are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; CN; $CH_2NR^9R^{10}$, $HCNOR^9$ or $HCNNR^9R^{10}$ in which R^9 and R^{10} are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; OR^{11}, SR^{11} or $NR^{11}R^{12}$ in which R^{11} and R^{12} are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl or together form optionally substituted heterocyclyl; or $SO_2NR^{13}R^{14}$ in which R^{13} and R^{14} are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; and

R^3, R^4, R^5, R and R' are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkoxy, optionally substituted acyl, hydroxy, alkylamino, alkylthio, alkylsulphonyl,

alkylsulphinyl, halo, SO_3H, amine, optionally substituted aryl, optionally substituted heterocyclyl, an anti-oxidant or a targeting moiety,

with the proviso that when R^1 to R^3, R and R' are H, then R^4 is not Cl and R^5 is not I.

Claim 4 (currently amended). The method of Claim 1 [[or 2]], wherein the 8-substituted quinolone is of the Formula



Ia:

in which:

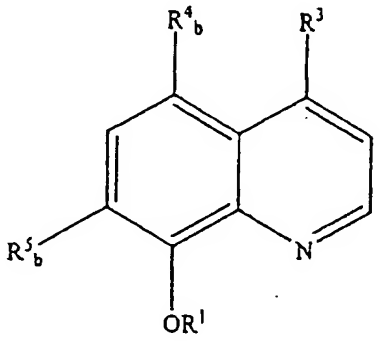
R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety;

R^3 and R are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkoxy, optionally substituted acyl, hydroxy, alkylamino, alkylthio, alkylsulphonyl, alkylsulphinyl, halo, SO_3H, amine, optionally substituted aryl, optionally substituted heterocyclyl, an anti-oxidant or a targeting moiety; and

R^2_a is H; optionally substituted C_{1-6} alkyl; optionally substituted C_{1-6} alkenyl; optionally substituted aryl; optionally substituted heterocyclyl; an antioxidant; a targeting

moiety; COR^6a or CSR^6a in which R^6a is H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, hydroxy, optionally substituted aryl, optionally substituted heterocyclyl or OR^7a, SR^7a or NR^7aR^8a in which R^7a and R^8a are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted aryl or optionally substituted hetercyclyl; CN; $CH_2NR^9aR^{10}a$, $HCNOR^9a$ or $HCNNR^9aR^{10}$ in which R^9a and $R^{10}a$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; $OR^{11}a$, $SR^{11}a$ or $NR^{11}aR^{12}a$ in which $R^{11}a$ and $R^{12}a$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted aryl or optionally substituted heterocyclyl or together form optionally substituted heterocyclyl; or $SO_2NR^{13}aR^{14}a$ in which $R^{13}a$ and $R^{14}a$ are either the same or different and selected from H or optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted aryl or optionally substituted heterocyclyl.

Claim 5 (currently amended). The method of Claim [[5]] 1, wherein the 8-substituted quinolone is of the Formula 1b:



Ib

in which:

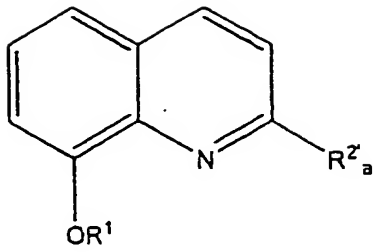
R' is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety;

R^3 is either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkoxy, optionally substituted acyl, hydroxy, alkylamino, alkylthio, alkylsulphonyl, alkylsulphinyl, halo, SO_3H, amine, optionally substituted aryl, optionally substituted heterocyclyl, an anti-oxidant or a targeting moiety; and

R^4b and R^5b are either the same or different and selected from H; optionally substituted C_{1-6} alkyl; optionally substituted C_{2-6} alkenyl; halo; an anti-oxidant; a targeting moiety, SO_3H; $SO_2NR^{13}aR^{14}a$ in which $R^{13}a$ and $R^{14}a$ are as defined in Formula Ia above; or $OR^{15}b$, $SR^{15}b$ or $NR^{15}bR^{16}b$ in which $R^{15}b$ and $R^{16}b$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted C_{1-6} acyl, optionally substituted aryl or optionally substituted heterocyclyl,

with the proviso that when R' and R^3 are H, then R^4b is not Cl and R^5b is not I.

Claim 6 (original). The method of Claim 4, wherein the Ia is of the Formula of IIa:



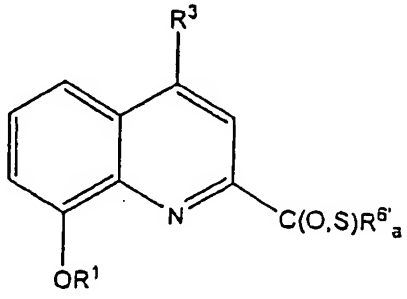
IIa

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety; and

R^2a is optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted aryl or optionally substituted heterocyclyl.

Claim 7 (original). The method of Claim 4, wherein the Ia is of the Formula of IIIa:



IIIa

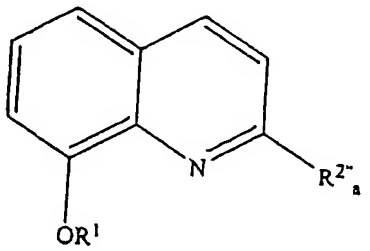
in which:

R^1 is H; optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety;

R^3 is either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl optionally substituted alkoxy, optionally substituted acyl, hydroxy, alkylamino, alkylthio, alkylsulphonyl, alkylsulphinyl, halo, SO_3H, amine, optionally substituted aryl, optionally substituted heterocyclyl, an anti-oxidant or a targeting moiety; and

$R^{6'}a$ is optionally substituted C_{1-6} alkyl, optionally substituted C2-6 alkenyl, hydroxy, $OR^{7'}a$, $SR^{7'}a$, $N_2R^{7'}aR^{8'}a$ or $NR^{7'}aR^{8'}a$ in which $R^{7'}$ and $R^{8'}a$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted aryl or optionally substituted heterocyclyl.

Claim 8 (currently amended). The method of Claim 1 [[or 2]], wherein the 8-substituted quinolone is of the Formula IVa;



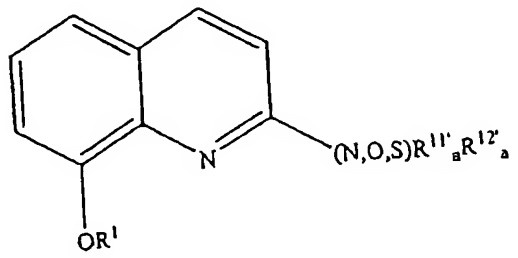
IVa

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety; and

$R^{2"}a$ is CN; $CH_2NR^{9'}aR^{10'}a$, $HCNOR^{9'}a$ or $HCNNR^{9'}aR^{10'}a$ in which $R^{9'}a$ and $R^{10'}a$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl.

Claim 9 (currently amended). The method of Claim 1 [[or 2]], wherein the 8-substituted quinolone is of the Formula Va;



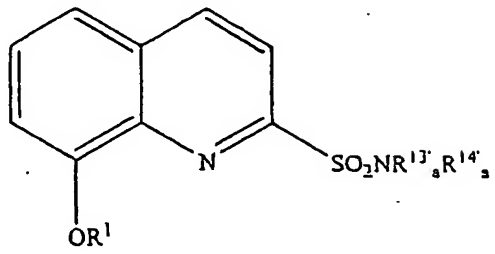
Va

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl; an antioxidant or a targeting moiety; and

$R^{11}a'$ and $R^{12}a'$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkeny, optionally substituted aryl and optionally substituted heterocyclyl or together form optionally substituted heterocyclyl.

Claim 10 (currently amended). The method of Claim 1 [[or 2]], wherein the 8-substituted quinolone is of the Formula VIa;



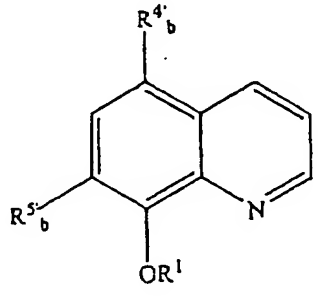
VIa

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety; and

$R^{13}a'$ and $R^{14}a'$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkeny, optionally substituted aryl or optionally substituted heterocyclyl.

Claim 11 (original). The method of Claim 5, wherein the Ib is of the Formula of IIb;



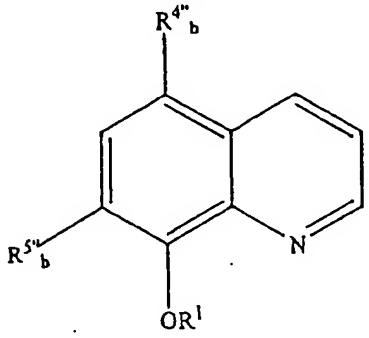
IIb

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety; and

R^4b' and R^5a' are either the same or different and selected from halo, C_{1-6} alkyl, C_{2-6} alkenyl, amine, SO_3H, optionally substituted aryl or optionally substituted heterocyclyl.

Claim 12 (original). The method of Claim 5, wherein the Ib is of the Formula of IIIb;



IIIb

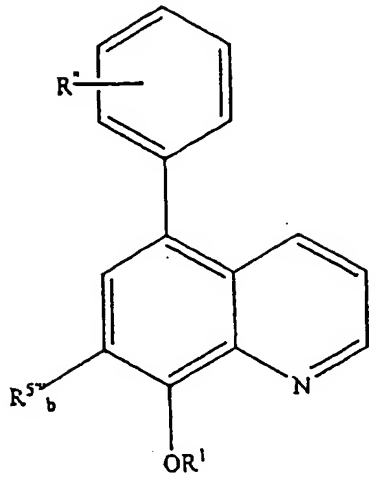
in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety;

$R^4b"$ is H or halo; and

$R^5b"$ is optionally substituted aryl or optionally substituted heterocyclyl.

Claim 13 (currently amended). The method of Claim 1 [[or 2]], wherein the 8-substituted quinolone is of the Formula IVb;



IVb

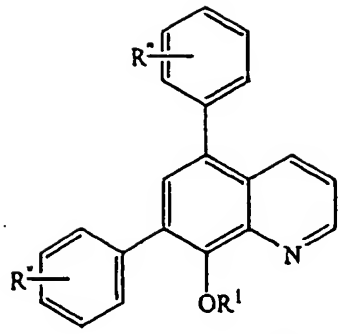
in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety;

R" is C_{1-6} alkoxy, halo, C_{1-6} alkyl, C_{2-6} alkenyl or C_{1-6} haloalkyl; and

R^5b" is H or halo.

Claim 14 (currently amended). The method of Claim 1 [[or 2]], wherein the 8-substituted quinolone is of the Formula Vb;



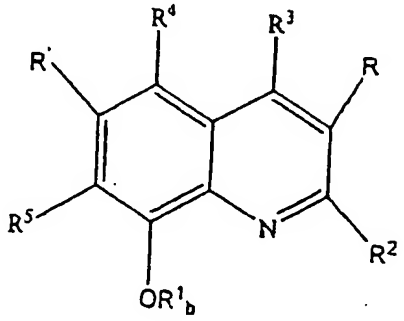
Vb

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety; and

R" is C_{1-6} alkoxy, halo, C_{1-6} alkyl, C_{2-6} alkenyl or C_{1-6} haloalkyl.

Claim 15 (currently amended). The method of Claim 1 [[or 2]], wherein the 8-substituted quinolone is of the Formula VIb;



VIb

in which:

R^2 is H; optionally substituted alkyl; optionally substituted alkenyl; optionally substituted aryl, optionally substituted heterocyclyl; optionally substituted alkoxy; an antioxidant; a targeting moiety; COR^6 or CSR^6 in which R^6 is H, optionally substituted alkyl, optionally substituted alkenyl, hydroxy, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant, a targeting moiety, OR^7, SR^7 or NR^7R^8 in which R^7 and R^8 are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; CN; $CH_2NR^9R^{10}$, $HCNOR^9$ or $HCNNR^9R^{10}$ in which R^9 and R^{10} are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; OR^{11}, SR^{11} or $NR^{11}R^{12}$ in which R^{11} and R^{12} are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl or together form optionally substituted heterocyclyl; or $SO_2NR^{13}R^{14}$ in which R^{13} and R^{14} are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; and

R^3, R^4, R^5, R and R' are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkoxy, optionally substituted acyl, hydroxy, alkylamino, alkylthio, alkylsulphonyl alkylsulphinyl, halo, SO_3H, amine, optionally substituted aryl, optionally substituted heterocyclyl, an anti-oxidant or a targeting moiety, with the proviso that when R^1 to R^3, R and R' are H, then R^4 is not Cl and R^5 is not I; and

R^1b" is optionally substituted C_{1-6} alkyl, optionally substituted aryl, optionally substituted aryl acyl, C_{1-6} alkyl acyl or optionally substituted heterocyclyl.

Claim 16 (original). The method of Claim 2, wherein the neurological disorder is selected from sporadic or familial AD, Parkinson's disease, multiple sclerosis, amylotrophic lateral sclerosis, epilepsy, drug abuse or drug addiction (alcohol, cocaine, heroin, amphetamine or the like), spinal cord disorders and/or injuries, dystrophy or degeneration of the neural retina (retinopathies) and peripheral neuropathies, such as diabetic neuropathy and/or the peripheral neuropathies induced by toxins, cardiomyopathy, AIDS dementia and HIV-1 induced neurotoxicity, atherosclerosis, cerebral ischaemia, cerebral palsy, cerebral tumour, chemotherapy-induced organ damage, cisplatin-induced nephrotoxicity, coronary artery bypass surgery, Creutzfeldt-Jacob disease and its new variant associated with "mad cow" disease, Down's syndrome, post-traumatic epilepsy, Friedrich's ataxia, frontotemporal dementia, glaucoma, glomerulopathy, hemochromatosis, hemodialysis, hemolysis, hemolytic uraemic syndrome (Weil's disease), hemorrhagic stroke, Hallerboden-Spatz disease, heart attack and reperfusion injury, Huntington's disease, Lewy body disease, intermittent claudication, ischaemic stroke, inflammatory bowel disease, macular degeneration, malaria, methanol-induced toxicity, meningitis (aseptic and tuberculous), motor neuron disease, multiple system atrophy, myocardial ischaemia, neoplasia, peri-natal asphyxia, Pick's disease, progressive supra-nuclear palsy, radiotherapy-induced organ damage, restenosis after angioplasty, retinopathy, senile dementia, schizophrenia, sepsis, septic shock, spongiform encephalopathies, subharrachnoid hemorrage/cerebral vasospasm,

subdural hematoma, surgical trauma, including neurosurgery, thalassemia, transient ischaemic attack (TIA), traumatic brain injury (TBI), traumatic spinal injury, transplantation, vascular dementia, viral meningitis and viral encephalitis, dementia associated with Down's syndrome, amyotrophic lateral sclerosis, motorneuron disease, cataract, dementia with Lewy body formation, diffuse Lewy body disease, neurological diseases resulting from oxidative stress, such as, neurological disease resulting from diabetes, stroke and cardiovascular disease.

Claim 17 (original). The method of Claim 2, wherein said agent is administered in conjuction with one or more pharmaceutically acceptable compounds used for treating a neurological disorders.

Claim 18 (original). The method of claim 17, wherein said compound is selected from phenserine, galantamine or tacrine, Vitamin E or Vitamin C, flurbiprofen or ibuprofen, NCX-2216, 17-ß-oestradiol and vitamin B12.

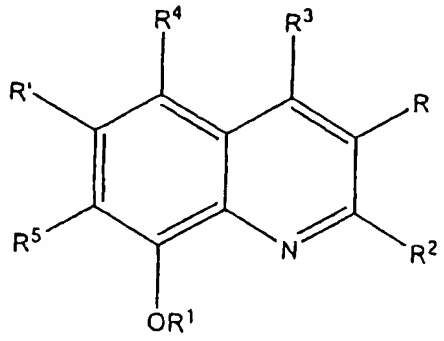
Claim 19 (canceled).

Claim 20 (original). A method for the prophylaxis and/or treatment of mild cognitive impairment (MCI) in a subject, said method comprising administering to said subject an effective amount of an 8-substituted quinolone or a derivative, homolog, analog, chemical equivalent or mimetic thereof which reduces the levels of reactive oxygen species.

Claim 21 (original). A method for improving cognitive function or memory in a subject, said method comprising administering to said subject an effective amount of an agent which reduces the levels of reactive oxygen species thereby improving the cognitive function or memory of said subject.

Claim 22 (original). The method of Claim 20 or 21, wherein the condition or disorder is a neurological condition or disorder.

Claim 23 (original). The method of Claim 20 or 21, wherein the 8-substituted quinolone is of the Formula I:



I

in which:

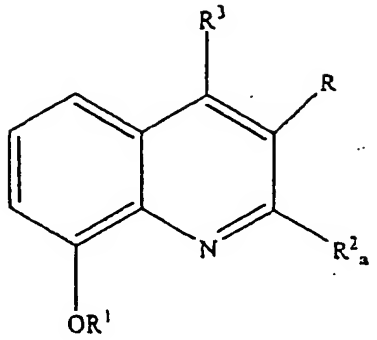
R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety;

R^2 is H; optionally substituted alkyl; optionally substituted alkenyl; optionally substituted aryl; optionally substituted heterocyclyl; optionally substituted alkoxy; an antioxidant; a targeting moiety; COR^6 or CSR^6 in which R^6 is H, optionally substituted alkyl, optionally substituted alkenyl, hydroxy, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant, a targeting moiety, OR^7, SR^7 or NR^7R^8 in which R^7 and R^8 are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; CN; $CH_2NR^9R^{10}$, $HCNOR^9$ or $HCNNR^9R^{10}$ in which R^9 and R^{10} are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; OR^{11}, SR^{11} or $NR^{11}R^{12}$ in which R^{11} and R^{12} are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl or together form optionally substituted heterocyclyl; or $SO_2NR^{13}R^{14}$ in which R^{13} and R^{14} are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; and

R^3, R^4, R^5, R and R' are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl optionally substituted alkoxy, optionally substituted acyl, hydroxy, alkylamino, alkylthio, alkylsulphonyl, alkylsulphinyl, halo, SO_3H, amine, optionally substituted aryl, optionally substituted heterocyclyl, an anti-oxidant or a targeting moiety,

with the proviso that when R^1 to R^3, R and R' are H, then R^4 is not Cl and R^5 is not I.

Claim 24 (original). The method of Claim 20 or 21, wherein the 8-substituted quinolone is of the Formula Ia:



in which:

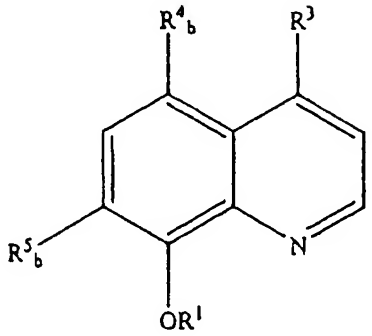
R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety,

R^3 and R are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl optionally substituted alkoxy, optionally substituted acyl, hydroxy, alkylamino, alkylthio, alkylsulphonyl, alkylsulphinyl, halo, SO_3H, amine, optionally substituted aryl, optionally substituted heterocyclyl, an anti-oxidant or a targeting moiety; and

R^2a is H; optionally substituted C_{1-6} alkyl; optionally substituted C_{1-6} alkenyl; optionally substituted aryl; optionally substituted heterocyclyl; an antioxidant; a targeting moiety; COR^6a or CSR^6a in which R^6a is H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, hydroxy, optionally substituted aryl, optionally substituted heterocyclyl or OR^7a, SR^7a or NR^7aR^8a in which R^7a and R^8a are either the same or

different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted aryl or optionally substituted hetercyclyl; CN; $CH_2NR^9aR^{10}a$, $HCNOR^9a$ or $HCNNR^9aR^{10}$ in which R^9a and $R^{10}a$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; $OR^{11}a$, $SR^{11}a$ or $NR^{11}aR^{12}a$ in which $R^{11}a$ and $R^{12}a$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted aryl or optionally substituted heterocyclyl or together form optionally substituted heterocyclyl; or $SO_2NR^{13}aR^{14}a$ in which $R^{13}a$ and $R^{14}a$ are either the same or different and selected from H or optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted aryl or optionally substituted heterocyclyl.

Claim 25 (currently amended). The method of Claim 20 or 21, wherein the 8-substituted ~~quinoloneis~~ quinolone is of the Formula Ib:



Ib

~~Formula Ib:~~

in which:

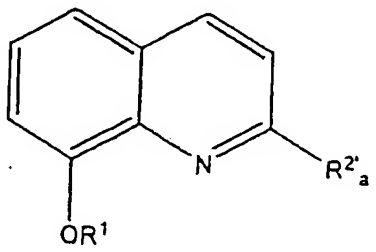
R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety;

R^3 is either the same or different and selected from H, optionally substituted alky, optionally substituted alkenyl, optionally substituted alkoxy, optionally substituted acyl, hydroxy, alkylamino, alkylthio, alkylsulphonyl, alkylsulphinyl, halo, SO_3H, amine, optionally substituted aryl, optionally substituted heterocyclyl, an anti-oxidant or a targeting moiety; and

R^4b and R^5b are either the same or different and selected from H; optionally substituted C_{1-6} alkyl; optionally substituted [[C^{2-6}]] C_{2-6} alkenyl; halo; an anti-oxidant; a targeting moiety, SO_3H; $SO_2NR^{13}aR^{14}a$ in which $R^{13}a$ and $R^{14}a$ are as defined in Formula Ia above; or $OR^{15}b$, $SR^{15}b$ or $NR^{15}bR^{16}b$ in which $R^{15}b$ and $R^{16}b$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted C_{1-6} acyl, optionally substituted aryl or optionally substituted heterocyclyl,

with the proviso that when R^1 and R^3 are H, then R^4b is not Cl and R^5b is not I.

Claim 26 (original). The method of Claim 24, wherein the Ia is of the Formula of IIa



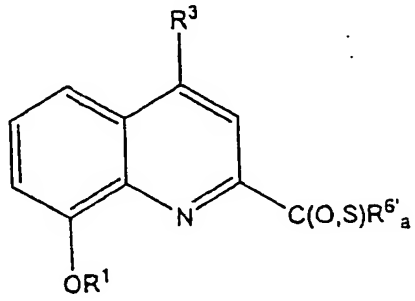
IIa

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety; and

$R^{2'}a$ is optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted aryl or optionally substituted heterocyclyl.

Claim 27 (original). The method of Claim 24, wherein the Ia is of the Formula of IIIa:



IIIa

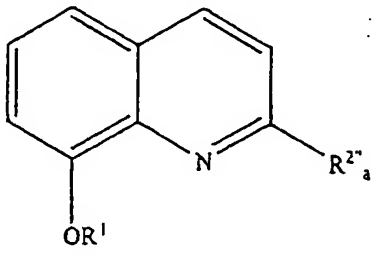
in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety;

R^3 is either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl optionally substituted alkoxy, optionally substituted acyl, hydroxy, alkylamino, alkylthio, alkylsulphonyl, alkylsulphinyl, halo, SO_3H, amine, optionally substituted aryl, optionally substituted heterocyclyl, an anti-oxidant or a targeting moiety; and

$R^{6'}a$ is optionally substituted C_{1-6} alkyl, optionally substituted C2-6 alkenyl, hydroxy, $OR^{7'}a$, $SR^{7'}a$, $N_2R^{7'}aR^{8'}a$ or $NR^{7'}aR^{8'}$ in which $R^{7'}a$ and $R^{8'}a$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted aryl or optionally substituted heterocyclyl.

Claim 28 (original). The method of Claim 20 or 21, wherein the 8-substituted quinolone is of the Formula IVa;



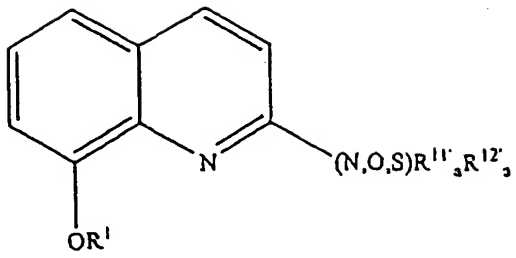
IVa

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety; and

$R^{2"}a$ is CN; $CH_2NR^{9'}aR^{10'}a$, $HCNOR^{9'}a$ or $HCNNR^{9'}aR^{10'}a$ in which $R^{9'}a$ and $R^{10'}a$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl.

Claim 29 (original). The method of Claim 20 or 21, wherein the 8-substituted quinolone is of the Formula Va;



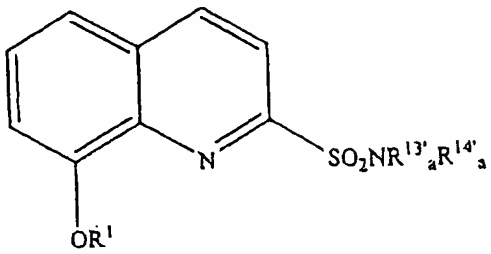
Va

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety; and

$R^{11}a'$ and $R^{12}a'$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted aryl and optionally substituted heterocyclyl or together form optionally substituted heterocyclyl.

Claim 30 (original). The method of Claim 20 or 21, wherein the 8-substituted quinolone is of the Formula VIa;



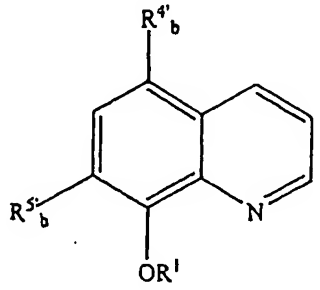
VIa

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety; and

$R^{13}a'$ and $R^{14}a'$ are either the same or different and selected from H, optionally substituted C_{1-6} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted aryl or optionally substituted heterocyclyl.

Claim 31 (original). The method of Claim 25, wherein the Ib is of the Formula of IIb;



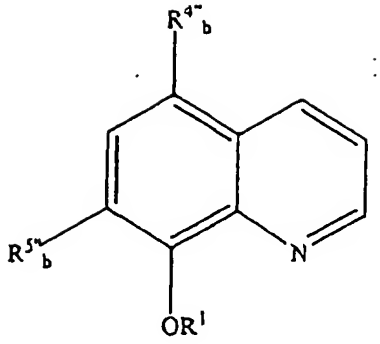
IIb

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety; and

R^4b' and R^5a' are either the same or different and selected from halo, C_{1-6} alkyl, C_{2-6} alkenyl, amine, SO_3H, optionally substituted aryl or optionally substituted heterocyclyl.

Claim 32 (original). The method of Claim 25, wherein the Ib is of the Formula of IIIb:



IIIb

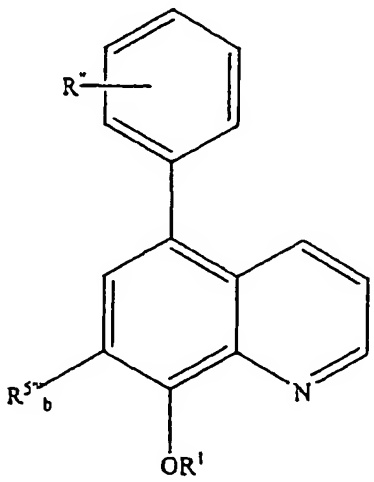
in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety;

R^4b'' is H or halo; and

R^5b'' is optionally substituted aryl or optionally substituted heterocyclyl.

Claim 33 (original). The method of Claim 20 or 21, wherein the 8-substituted quinolone is of the Formula IVb;



IVb

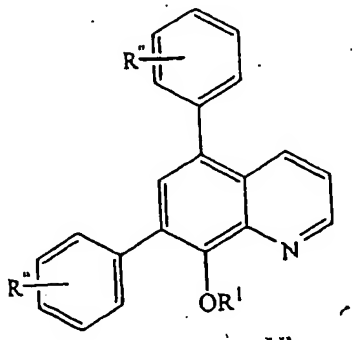
in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety;

R" is C_{1-6} alkoxy, halo, C_{1-6} alkyl, C_{2-6} alkenyl or C_{1-6} haloalkyl; and

R^5b" is H or halo.

Claim 34 (original). The method of Claim 20 or 21, wherein the 8-substituted quinolone is of the Formula Vb;



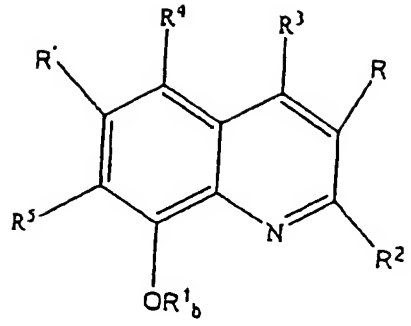
Vb

in which:

R^1 is H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted acyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety; and

R" is C_{1-6} alkoxy, halo, C_{1-6} alkyl, C_{2-6} alkenyl or C_{1-6} haloalkyl.

Claim 35 (original). The method of Claim 20 or 21, wherein the 8-substituted quinolone is of the Formula VIb;



VIb

R^2 is H; optionally substituted alkyl; optionally substituted alkenyl; optionally substituted aryl; optionally substituted heterocyclyl; optionally substituted alkoxy; an antioxidant; a targeting moiety; COR^6 or CSR^6 in which R^6 is H, optionally substituted alkyl, optionally substituted alkenyl, hydroxy, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant, a targeting moiety, OR^7, SR^7 or NR^7R^8 in which R^7 and R^8 are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; CN; $CH_2NR^9R^{10}$, $HCNOR^9$ or $HCNNR^9R^{10}$ in which R^9 and R^{10} are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; OR^{11}, SR^{11} or $NR^{11}R^{12}$ in which R^{11} and R^{12} are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl or together form optionally substituted heterocyclyl; or $SO_2NR^{13}R^{14}$ in which R^{13} and R^{14} are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted aryl or optionally substituted heterocyclyl; and

R^3, R^4, R^5, R and R' are either the same or different and selected from H, optionally substituted alkyl, optionally substituted alkenyl optionally substituted alkoxy, optionally substituted acyl, hydroxy, alkylamino, alkylthio, alkylsulphonyl, alkylsulphinyl, halo, SO_3H, amine, optionally substituted aryl, optionally substituted heterocyclyl, an anti-oxidant or a targeting moiety, with the proviso that when R^1 to R^3, R and R" are H, then R^4 is not Cl and R^5 is not I; and

R^1b" is optionally substituted C_{1-6} alkyl, optionally substituted aryl, optionally substituted aryl acyl, C_{1-6} alkyl acyl or optionally substituted heterocyclyl.

Claim 36 (original). The method of Claim 22, wherein the neurological disorder is selected from sporadic or familial AD, Parkinson's disease, multiple sclerosis, amylotrophic lateral sclerosis, epilepsy, drug abuse or drug addiction (alcohol, cocaine, heroin, amphetamine or the like), spinal cord disorders and/or injuries, dystrophy or degeneration of the neural retina (retinopathies) and peripheral neuropathies, such as diabetic neuropathy and/or the peripheral neuropathies induced by toxins, cardiomyopathy, AIDS dementia and HIV-1 induced neurotoxicity, atherosclerosis, cerebral ischaemia, cerebral palsy, cerebral tumour, chemotherapy-induced organ damage, cisplatin-induced nephrotoxicity, coronary artery bypass surgery, Creutzfeldt-Jacob disease and its new variant associated with "mad cow" disease, Down's syndrome, post-traumatic epilepsy, Friedrich's ataxia, frontotemporal dementia, glaucoma, glomerulopathy, hemochromatosis, hemodialysis, hemolysis, hemolytic uraemic syndrome (Weil's disease), hemorrhagic stroke, Hallerboden-Spatz disease, heart attack and reperfusion injury, Huntington's disease, Lewy body disease, intermittent

claudication, ischaemic stroke, inflammatory bowel disease, macular degeneration, malaria, methanol-induced toxicity, meningitis (aseptic and tuberculous), motor neuron disease, multiple system atrophy, myocardial ischaemia, neoplasia, peri-natal asphyxia, Pick's disease, progressive supra-nuclear palsy, radiotherapy-induced organ damage, restenosis after angioplasty, retinopathy, senile dementia, schizophrenia, sepsis, septic shock, spongiform encephalopathies, subharrachnoid hemorrage/cerebral vasospasm, subdural hematoma, surgical trauma, including neurosurgery, thalassemia, transient ischaemic attack (TIA), traumatic brain injury (TBI), traumatic spinal injury, transplantation, vascular dementia, viral meningitis and viral encephalitis, dementia associated with Down's syndrome, amyotrophic lateral sclerosis, motorneuron disease, cataract, dementia with Lewy body formation, diffuse Lewy body disease, neurological diseases resulting from oxidative stress, such as, neurological disease resulting from diabetes, stroke and cardiovascular disease.

Claim 37 (currently amended). The method of ~~any of any of Claims 20 or 21 or 22~~ Claim 22 wherein said 8-substituted quinolone is administered in conjunction with one or more pharmaceutically acceptable compounds used for treating a neurological disorders.

Claim 38 (original). The method of Claim 37, wherein said compound is selected from phenserine, galantamine, or tacrine, Vitamin E or Vitamin C, flurbiprofen or ibuprofen, NCX-2216, 17-ß-oestradiol and vitamin B12.

Claim 39 (cancelled).